ABSTRACT OF THE DISCLOSURE

An object is to enable accurate calculation of angles and displacements, and to enable reduction of circuit scales. An audio signal processing device, having a digital signal processing circuit (31) which performs virtual acoustic image localization processing such that an acoustic image is localized at an arbitrary position in the vicinity of the listener, by reproducing, using headphones (2) or a plurality of speakers, output signals obtained by signal processing of input audio signals, is characterized in that analog detection signals from a sensor (1) which detects the state of action of the listener are input to the digital signal processing circuit (31) via an A/D converter (30), and the transmission characteristics of these audio signals are modified in realtime, according to values derived by processing the values of analog detection signals from the sensor (1), or by processing the analog detection signals.